New York State Department of Transportation Yellow Flag NB2228W023

By: Ben Colangelo

Flag Date: April 13, 2022

Superseding Information:

This flag supersedes: YF NB2122W039

Structure Information

BIN: 1065318 Region: 11 - NEW YORK CITY

Feature Carried: 278I278IX2M23027 County: KINGS

Feature Crossed: 6TH AVENUE Political Unit: City of NEW YORK
Orientation: 8 - NORTHWEST Approximate Year Built: 1962

Posted Load Matches Inventory: Yes

Bridge Load Posting (Tons): Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E. Date: April 13, 2022 1:15:00 PM

Of: NYSDOT Region 11

Signature Information

Signature: Ben Colangelo, P.E. 068498 Date: June 08, 2022

Reviewed By: Robert Kemp Date: June 08, 2022

Attachments: 7

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 256			
	107 - Steel Open Girder/Beam	976	ft
	PR831 - Steel Beam End	40	each

Flagged Condition Description

This Yellow Flag No. NB2228W023 supersedes Yellow Flag No. NB2122W039.

Location: Span 256 G4 at Pier 256

Description: The web of the girder at the upper cope has a 1-3/4" long diagonal crack that extends into a 3" L x 1" W corrosion hole. The lower web above the bottom flange angle vertical leg has a 1" L x $\frac{1}{2}$ " W diameter corrosion hole. (Photos 3, 4 & 5).

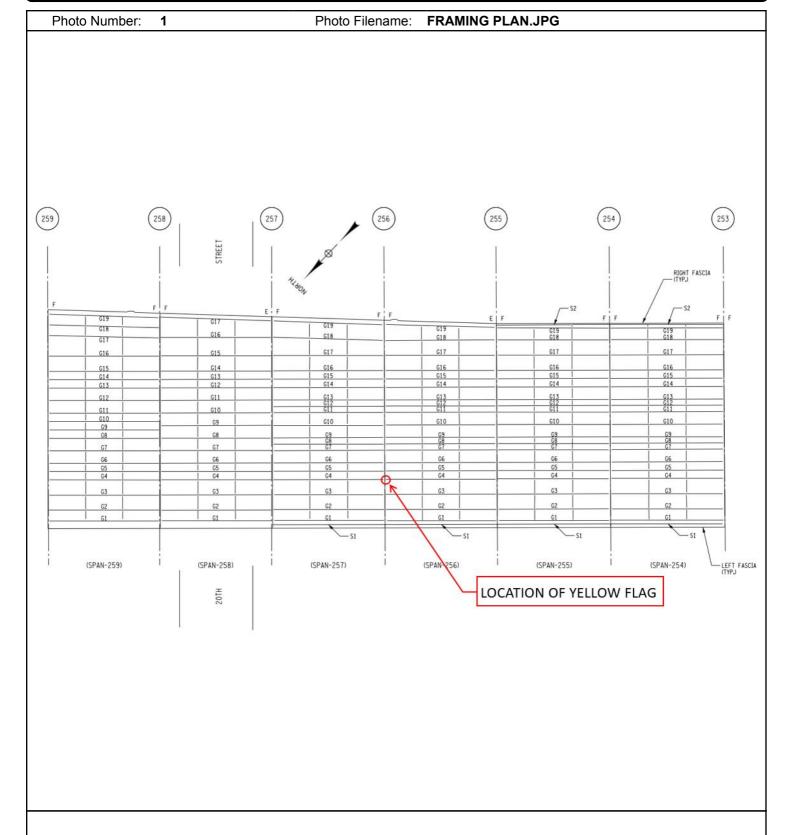
There has been no significant change since previous inspection.

The affected member Girder G4 is a load path redundant built-up steel girder consisting of varying web depth x 3/8" thick and two equal leg angles (L 5" x 5" x 1/2") for the top and bottom flanges (Photo 2). The spacing between Girder G3 and G4 is 6'-11" on center and 3'-9" on center from G5 (Photo 1).

Notes:

- 1. No deformation was observed in any part of Girder G4 connection to Pier 256 cap beam.
- 2. The adjacent Girder G3 (left side) has 1/8"-3/16" section loss at the left side web x 24" H x 5" W. Girder G5 (right side) has repair plates at the web with moderate corrosion.
- 3. Left lane closure at 3rd Avenue Out-Bound (Verrazano Bridge) between 20th and 21st Streets, and a 35' bucket truck are required to access this location.

Flag Photographs



Attachment Description: BIN 1065318, Framing Plan, Spans 254 -259

Photo Number: Photo Filename: YELLOW FLAG SKETCH.jpg YELLOW FLAG NB2228W023 BIN 1065318 DATE: 04/13/2022 1-3/4" L diagonal crack & 3" Lx 1" wide corrosion hole **PIER 256** Top Flange CAP BEAM 2/L5" x 5" x 1/2" 0 0 0 0 C 54.5" Span **256** Pier 256 G4 0 Oi $t_w = 3/8"$ 01 C 0 000 000 **Bottom Flange** 2/L5" x 5" x 1/2" 1" L x ½" wide **Built-Up Member** corrosion hole **Built-Up Member** Properties Vary depth web: 54.5" b-to-b Ls @ Piers 255 and 256 and 33" @ midspan Web thickness =3/8" Bottom and Top Flanges are two equal leg angles L 5" x 5" x 1/2" Span 256, Girder G4 at Pier 256 **Elevation (Right)** N.T.S.

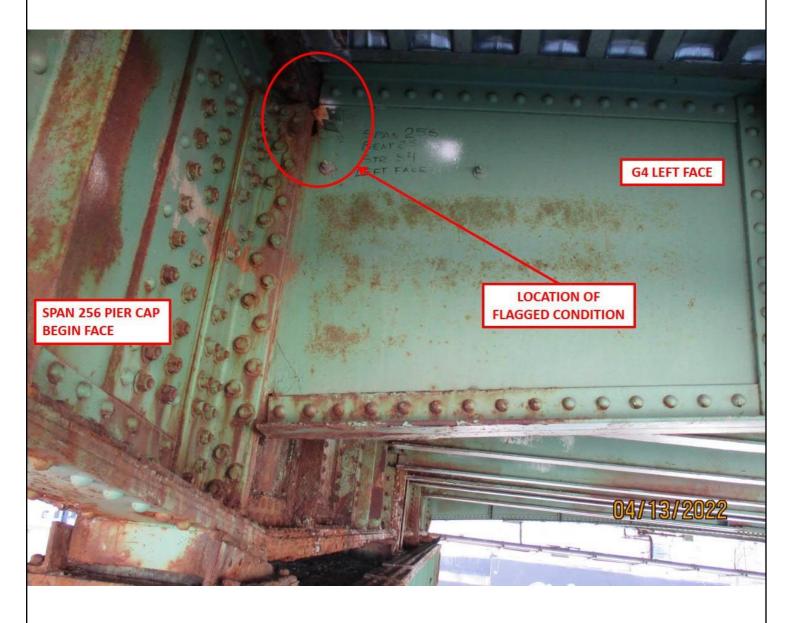
Attachment Description: Sketch of G4 at Pier 256

Photo Number: 3 Photo Filename: Photo 1-Edit JF.jpg



Attachment Description: Span 256 G4 at Pier 256 – General framing plan of flagged location. Looking End.

Photo Number: 4 Photo Filename: Photo 2-Edit JF.jpg



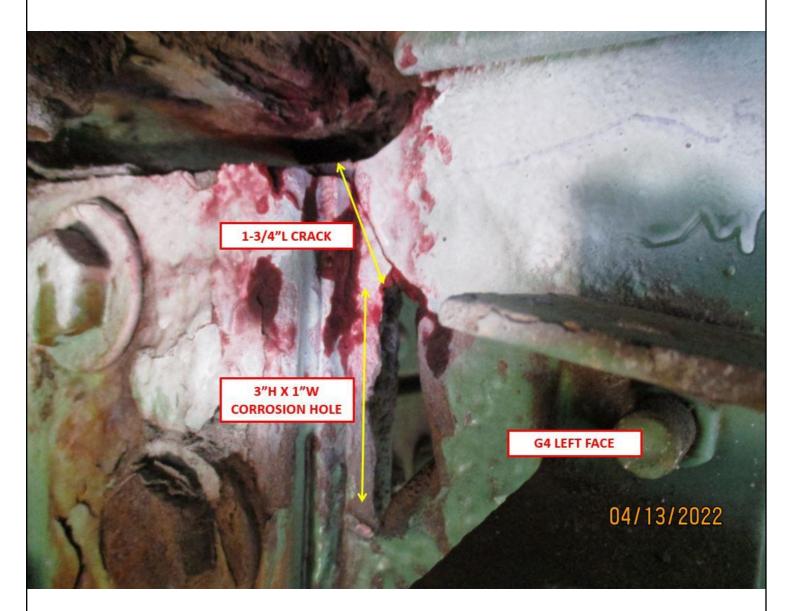
Attachment Description: Span 256 G4 at Pier 256 – General view of flagged location. Looking End Right.

Photo Number: 5 Photo Filename: 318-3936.JPG



Attachment Description: Span 256 G4 at Pier 256 – Close up view of 1-3/4" long diagonal crack at upper cope and 3" H x 1" W corrosion hole at end of crack before dye test. Looking Right.

Photo Number: 6 Photo Filename: 318-3961.JPG



Attachment Description: Span 256 G4 at Pier 256 – Close up view of 1-3/4" long diagonal crack at upper cope and 3" H x 1" W corrosion hole at end of crack after dye test. Looking Right.

Yellow Flag NB2228W023 BIN 1065318 Flag Date: April 13, 2022

Photo Number: 7 Photo Filename: 318-3924.JPG



Attachment Description: Span 256 G4 at Pier 256 – Close up view of 1" long x ½" wide corrosion hole at lower web above bottom flange angle. Looking Left.